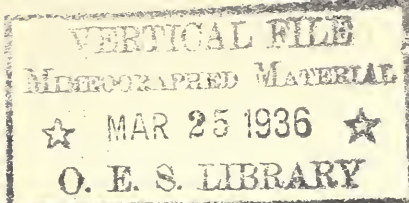


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THE FEDERAL EXTENSION HORTICULTURIST

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HAPPY NEW YEAR

After the Christmas holiday celebrations are over and we get back at work, there is nothing more exhilarating than settling down and cogitating deeply over a plan of work for 1936. An outline for an up-to-date plan of work in horticulture appears in this number. This outline has appealed to practically all of the extension horticulturists who have seen it, and scores of them are following it in whole or in part. The horticultural plans have improved very satisfactorily in the last 2 or 3 years, but there are still a few openings here and there where an improvement or two may be tucked in.

Just think the matter over while you are resting and jot down your problems, how you will solve them, when you will do it, where you will do it, how much you will do, who will help you, and how you will tell the world about it.

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United States Department of Agriculture
Division of Cooperative Extension and
Bureau of Plant Industry Cooperating

EDITORIAL

"Yarbs and Yarb Teas"

The younger generation of extension horticulturists probably missed the pleasure of the annual dosage of grandma's "yarb tea" as the regulation spring tonic par excellence. The older ones of us have tasted and drunk quarts of it and felt miserable if we didn't and worse if we did. It was the custom of the day and whether it was a good one or a bad one did not matter, the custom must be upheld to the bitter end -- and it was often very bitter. Considerable quantities of "yarbs" or herbs were also used for seasoning in cookery. Many families continued growing a few herbs and a few enthusiastic amateurs developed herb gardens of deep interest and considerable value.

In the past very few years herbs have come back into favor very rapidly. The Federal, State, and county horticultural and home economics specialists are spreading the gospel of herb culture throughout the land and it is taking root everywhere. County home agents are requesting the Federal herb pamphlet by the hundreds. A few States have their own printed or mimeographed matter. The literature is quite rich in herb subjects and a long list of references has been assembled by Miss Miriam Birdseye of the Federal Extension Office.

This item is only a reminder that herb plants are of use not only gustatorily and medicinally but also as ornamental plants. Many of them produce most beautiful blooms for landscape plantings with other plants, or by themselves in a real herbal garden. A Federal pamphlet on the general culture of these interesting plants is available for those who want it.

OUTLINE FOR PLAN OF WORK IN HORTICULTURE

1. Status of industry for fruits, nuts, and vegetables, and present conditions of landscape work.
2. Problems confronting horticultural work.
3. Solution of these problems.
4. Goals.
5. Cooperating parties and duties of each.
6. Teaching methods.
7. Bulletins, circulars, etc., to be prepared.
8. Calendar of operations.
9. State map.

Just give this outline a trial if you have not already used it. Notice the ease with which each item slips into the one next below. The sequence is as perfect as clock work. Do not forget the State map. Some of the specialists use a map for each project thereby locating all the demonstrations in the project. Usually one map serves the purpose of all projects and this is entirely satisfactory.

STATE SPECIALISTS

Our former request is repeated. -- Please send in the names of all new specialists entering the service, all who leave one State to take up work in another, and all who drop out to take other positions. Kindly mention line of work with each name, whether it be with fruits, nuts, vegetables, or ornamentals. If anything is reported incorrectly below, kindly send correction.

Mr. O. B. Combs has taken up vegetable extension in Wisconsin.

Mr. F. S. Sloan will do general horticultural extension work in western North Carolina with headquarters at Franklin in Macon County. He was formerly county agent in that county.

Mr. H. E. Nichols has exchanged his extension fruit work for college teaching at Ames, Iowa.

Mr. N. D. Morgan, formerly in research work, has recently become vegetable extension specialist in Iowa.

Mr. R. B. Johnson has been appointed landscape specialist in Iowa.

Another addition to the horticultural staff in Iowa is Mr. S. W. Edgecomb who took up his duties there October 15, 1935.

It seems that Mr. J. A. De France is now substituting for Prof. J. D. Bushey at Cornell University, Ithaca, N. Y.

On January 1, 1936, Damon Boynton began work in extension pomology at Cornell University, Ithaca, N. Y.

In Massachusetts Mr. J. W. Dayton has recently been appointed as vegetable extension specialist.

Mr. J. G. Richard has been promoted from the position of county agent in Terrebonne Parish to that of State horticultural specialist in Louisiana.

Mr. Henry Gilbert is now landscape specialist in Kansas.

During the absence of Prof. A. E. Wilkinson on sabbatical leave, Mr. A. M. Porter is carrying on the vegetable gardening work.

Mr. H. S. Fisher has the position of landscape specialist in Alabama formerly occupied by Mr. C. E. McCord.

In Oklahoma Mr. Francis K. McGinnis, Jr., has the landscape work formerly carried by Mr. R. C. Monosmith who is now at the Massachusetts State College at Amherst.

Mr. W. D. Armstrong begins work February 1, 1936, as assistant in horticultural work in Oklahoma.

TRUE STORIES FROM THE STATES

When the call was sent out last November for a paragraph or two on the most satisfactory line or method of horticultural extension work carried in 1935 by each specialist, the response was most generous. Less than half the material received could be included in the Federal report on "High Lights in Horticultural Extension in 1935" presented at the conference of extension horticulturists in connection with the annual meeting of the American Society for Horticultural Science in St. Louis, Mo.; during the Christmas holiday season. The remainder of the information will appear from time to time in this section of the Federal Extension Horticulturist.

New Hampshire - C. O. Rawlings. Another project here is the farm visit demonstrations. These make up a wide variation of subjects ranging from picking orchard sites to the construction of storages. Because of this variation, they have not been listed separately by projects, yet they stand as demonstrations in the several communities. There were 229 of these demonstrations made during 1935.

Connecticut - H. A. Rollins. The analysis of orchard soils has been considered an important part of the 1935 program. Samples have been taken from under the trees as well as from the area between them. There appears to be a great variation in soil acidity, nitrogen, phosphorus, potash, and organic matter content. Growers are keenly interested in this program.

There are many bearing Baldwin trees in the State that are in a weakened condition as a result of the cold winters of 1933 and 1934. The care of these winter-injured trees has been a problem during the past season and special emphasis has been stressed upon the pruning and fertilizer treatments needed to assist these weakened trees in recovery.

Massachusetts - W. H. Thies. Some progress has been made during the past year in our orchard soil demonstration work. Soil profiles and root distribution are being correlated with tree behavior with the idea of handling more profitably our present plantings, many of which present real problems of orchard management. Ten such demonstrations have been started during the closing weeks of 1935.

Maryland - A. F. Vierheller. In 1935 the Elberta special pruning trees gave earliest and heaviest pickings. The average yield per tree of special pruning was 4.53 bushels with 30 to 50 percent of color. The average yield per tree of usual pruning was 3.19 bushels with 0 to 5 percent of color. There was a 30,000 bushel peach crop on this orchard in 1935 and the owners feel that their adoption of the approved pruning increased the crop value by 25 percent.

New Jersey - A. J. Farley. A project involving the introduction and testing of new varieties of peaches developed at the experiment station produced results of real value to many peach growers during the past season. The prices received for the fruit of these new varieties were consistently higher, even up to \$1 per bushel higher, than those received from the old standard varieties of the same season. Nearly 40,000 trees of 10 new varieties were distributed among 155 New Jersey fruit growers in cooperation with the New Jersey Peach Council. It is now very clear that these new varieties are destined not only to revive the New Jersey peach industry, but to place it on a higher plane than ever, from the standpoint of attractive, high quality peaches.

Virginia - A. H. Teske. (The following paragraphs describe the soil treatment of the 60-acre Delicious orchard mentioned in "High Lights in Horticultural Extension in 1935." C. P. C.)

1930.--Four pounds of nitrate of soda per tree were applied in the spring. Soybeans were sown in June and 100 pounds per acre of 2-12-2 fertilizer were broadcast. In early fall the soybeans were disked down and rye sown with 200 pounds per acre of 0-13-6 fertilizer. A crop of 5,200 barrels of apples was produced at a cost of 64 cents per barrel.

1931.--Four pounds of nitrate of soda per tree were given in spring. The rye was disked down and soybeans were sown in June when 200 pounds per acre of 0-12-5 fertilizer were applied. In early fall the soybeans were

disked in lightly and rye was sown. The crop was 3,800 barrels of apples produced at a cost of 75 cents per barrel.

1932.--Lespedeza was seeded in April. The rye was cut and left as a mulch. In the fall the lespedeza was disked down and rye was sown. The crop was 8,500 barrels produced at a cost of 28 cents per barrel.

1933.--Lespedeza was reseeded and rye was cut and left as a mulch. Sixteen hundred pounds of lime were applied per acre. In the fall the lespedeza was disked in and rye was sown. The cost of producing 4,200 barrels of apples was 53 cents per barrel.

1934.--Four pounds of nitrate of soda per tree were applied in the spring. Sweetclover was sown in March and 75 pounds of a 2-12-4 fertilizer were broadcast. In the fall the lespedeza and sweetclover were disked in lightly and rye was sown. The crop of 9,200 barrels of apples cost 32 cents per barrel to produce.

1935.--Three pounds of nitrate of soda were given per tree. In March sweetclover was sown with 175 pounds of 16 percent acid phosphate per acre. The lespedeza reseeded itself. The rye was cut and left as a mulch. The lespedeza and sweetclover were disked lightly and rye was sown. The cost of producing 8,500 barrels of apples was 35 cents per barrel.

In 6 years this 60-acre orchard produced 39,400 barrels of apples with an annual average crop of 330 bushels per acre.

Virginia - L. W. Moore. Work was done with wettable sulfurs in combination with lime-sulfur in the earlier sprays and used alone in the later sprays in an effort to reduce the spray damage to foliage and fruit. Several commercial brands of wettable sulfurs were used. One in particular, known as magnetic wettable sulfur, when used in combination with lime-sulfur in the earlier sprays, resulted in 7 percent more efficient control of scab. The fruit and foliage were practically free of spray damage and the fruit had a finer finish. These combinations will be continued in 1936.

South Carolina - E. H. Rawl. A very careful fertilizer demonstration conducted during the past year definitely indicated that the application of nitrogen only to peach trees in South Carolina is an improper fertilizer practice. In the check plot of the demonstration which received the same amount of nitrogen as was formerly applied per acre, the following condition developed. In the early stage of the abnormal condition the leaves first changed to light yellow-green with considerable curling, later turning to very pale yellow followed by burning or scorching of the tips and margins, finally showing a bronzing or brownish color, and ultimately resulting in premature defoliation and failure to mature peaches of satisfactory marketable size. Such trees produced an exceedingly scant crop of weak buds.

Kentucky - W. W. McGill. The first southwestern Kentucky nut show and educational meeting was held at Bardwell, Carlisle Co., during November. Eighty-four samples of native seedling nuts (pecan, hickory, and black walnut) were on display and 70 citizens from five counties attended. This meeting was

promoted with the aid of the county agents of that district. According to the judge, Mr. John W. Hershey, nut specialist of the Tennessee Valley Authority, two seedling pecans, one hickory, and one black walnut of special merit were on display.

The sample of pecans winning first prize was grown on a very large native tree, slightly over 5 feet in diameter and having a spread of branches of over 100 feet (sounds pretty big, but I saw the tree and helped measure it!), and this year it produced over 400 pounds of nuts. It grows in sight of the Mississippi river about 8 miles south of Columbia in Hickman County.

There are several hundred acres of native pecan and hickory trees in the Mississippi and Ohio River bottoms and the landowners of the district are greatly interested in top-grafting and budding to the better seedling varieties, as well as planting nut trees of known varieties. The extension service will assist in this development.

Georgia - G. H. Firor. Since the organization of the soil-erosion program quite a number of bearing peach orchards of the State have been terraced. Practically all of the new orchards that have been planted during the past 2 years were terraced before the trees were set.

A cover crop for winter and summer has been recommended for all types of fruit produced in Georgia. It is gratifying to note that there is a gradual improvement in quality and increase in production as a result of these demonstrations.

Florida - F. E. De Busk. In December 1933, an extensive fact-finding demonstration with the use of both zinc sulphate and copper sulphate in soil applications for "frenching" and splitting of Valencia oranges was started. These two chemicals were used at different rates, both alone and combined. Results showed up this year with the "frenching" corrected almost 100 percent and splitting of the Valencia oranges also reduced about 75 percent where the two chemicals were applied to the soil at the rate of $1\frac{1}{2}$ pounds per tree. The trees made much more growth and the crop of fruit was increased more than 60 percent. No additional applications have been made. The annual loss from splitting of Valencia oranges in Florida runs into hundreds of thousands of dollars. No remedy for this disease has been worked out. It seems as though we have now found a lead.

Texas-J. F. Rosborough. A variety fruit chart has been prepared by the extension service and placed in the hands of each leading nurseryman in the State. This chart is used extensively in filling orders where the names of varieties in the order is left to the nurseryman.

A program for obtaining buds from seedling fruits in the State is being conducted by county agents and extension specialists to obtain new and better varieties. Fifteen hundred trees, including 75 promising seedling fruits, are ready for official orchard demonstration work at this time.

Ohio - F. H. Beach. In thorough spraying demonstrations, targets concealed in the trees and removed after spraying by the county agent, did much to create interest in thorough coverage. A paper stretched over a frame was used as a device to show when spray fogs are safe to put against leaves and fruit.

Cooperating with the Division of Markets a daily radio broadcast over WOSU, the University Station, of shipping point and terminal markets on fruits of interest to Ohio growers, was inaugurated. During the peach season the farm prices on peaches were included. This service was started in September, following the installation of a Federal leased wire in the office of the Division of Markets, which carried all shipping point and terminal market quotations of the United States Department of Agriculture Market News Service.

Indiana - Monroe McCown. Growers were instructed ahead of time how to use the spray service information: (1) Spray once a week during rainy weather which may occur from the time of the first spores discharge until 2 to 4 weeks after petal fall. (2) Insofar as possible, cover the orchard by the third day after the rain begins. (3) Apply approximately 3 quarts of material for each year of the age of the tree.

This program saved Indiana apple growers at least \$60,000 in 1934 in reduced spray bills, and in 1935, through the use of the information by the growers, commercial control of apple scab was obtained on approximately 85 percent of the truly commercial apple acreage. This was in contrast to results in 1933, another extremely severe scab year, when the apple crop in the State was reduced 50 percent or more by apple scab.

The number of commercial apple washers in Indiana in 1934 was 11. This number more than doubled in 1935 so that by the end of the harvest, approximately 30 commercial washers were in use within the State, washing not only the owners' crops but most of them doing also a certain amount of custom washing. The number is expected to increase to 50 or more during the season of 1936 barring heavy crop losses from freezes. Indiana growers have also made arrangements for satisfactory residue analysis and are using the service.

Strawberries in the shipping district of 10 counties increased the farmer income approximately one-half million dollars this season, the 2,500 acres producing a gross income of about \$200 per acre. This crop furnished real farm relief during the depression years and continues as an important cash crop in certain Indiana counties.

HORTICULTURAL EXTENSION PUBLICATIONS

Received During October 1935

- California College of Agriculture, Berkeley.
Asparagus production in California.
Ext. Circ. 91, 1935.
- Georgia College of Agriculture, Athens.
Austrian winter peas and the vetches for
fertilizer, feed and soil protection.
Ext. Bul. 453, 1935.
- Minnesota College of Agriculture, University Farm, St. Paul.
Vegetable garden insects and their control.
Ext. Folder 32, rev., 1935.
- Nebraska College of Agriculture, Lincoln.
Certified potato production costs. Growing
and harvesting costs only. Ext. Circ. 865,
1934.
- New York New York State College of Agriculture, Ithaca.
The bearded iris. Ext. Bul. 324, 1935.
- Washington State College of Washington, Pullman.
Orchard cover crops. Ext. Bul. 208, 1935.

Received During November 1935

- New Mexico New Mexico College of Agriculture and Mechanic
Arts, State College.
The home vegetable garden. Ext. Circ. 126,
rev., 1935.

Received During December 1935

- Arkansas 524 Post Office Building, Little Rock.
Irish potato production, harvest, and
storage. Ext. Circ. 344. 1925.
Shrubs, their propagation and management.
Ext. Circ. 345. 1935.
- Connecticut Connecticut State College, Storrs.
Grade defects of potatoes. Ext. Bul. 222. 1935.
Tomatoes. Ext. Bul. 225. 1935.
- Massachusetts Massachusetts State College, Amherst.
Potato growing in Massachusetts. Ext. Leaf-
let 20, rev. 1935.
How to grow carrots. Ext. Leaflet 61, rev.
1935.

- Michigan Michigan State College, East Lansing.
Hardy perennials for landscape planting in
Michigan. Ext. Bul. 146. 1935.
Pruning young fruit trees. Ext. Bul. 148.
1935.
- South Dakota South Dakota State College of Agriculture and Mechan-
ic Arts, Brookings.
Drying fruits and vegetables. Ext. Circ. 350.
1935.

HORTICULTURAL SCIENTIFIC PUBLICATIONS

Received During July 1935

- California College of Agriculture, Berkeley.
Precooling investigations with deciduous fruits.
Sta. Bul. 590, 1935.
Morphological development of the fruit of Juglans
regia. Vol. 9, No. 7, 1935.
Life history and control of the gladiolus thrips
in California. Sta. Circ. 337, 1935.
- Connecticut Connecticut Agricultural Experiment Station, New Haven.
Further experiments on Mexican bean beetle control.
Sta. Bul. 371, 1935.
- Idaho College of Agriculture, Moscow.
A varietal study of the susceptibility of sweet
cherries to cracking. Sta. Bul. 211, 1934.
- Illinois College of Agriculture, Urbana.
Saving garden crops from insect injury. Sta.
Circ. 437, 1935.
- Maine College of Agriculture, Orono.
A study of the organization and management of
potato farms in Aroostook County, Maine. Sta.
Bul. 378, 1935.
- Maryland University of Maryland, College Park.
Fruit rotting sclerotinias. Sta. Bul. 371, 1934.
Nitrogenous metabolism in Irish potatoes during
storage. Sta. Bul. 372, 1935.
- Montana Montana State College of Agriculture, Bozeman.
Potato diseases in Montana. Sta. Bul. 300, 1935.
- New Jersey State College of Agriculture, New Brunswick.
The greenhouse culture of carnations in sand.
Sta. Bul. 588, 1935.

New York	New York State College of Agriculture, Ithaca. Soils in relation to fruit growing in New York. Sta. Bul. 626, 1935. Greensprouting seed potatoes. Sta. Bul. 632, 1935.
Pennsylvania	Pennsylvania State College, State College. Removal of spray residues from apples. Sta. Bul. 318, 1935.
South Carolina	Clemson Agricultural College of South Carolina, Clemson. Costs and returns and factors for success on truck farms in the new truck area of South Carolina. Sta. Bul. 301, 1935.
Virginia	Virginia Polytechnic Institute, Blacksburg. Life history and migration of the apple woolly aphis. Sta. Tech. Bul. 57, 1935. Virginia Truck Experiment Station, Norfolk. Truck crop investigations: Tolerance of cabbage seedlings to insecticide dips for the control of aphids and cabbage worms. Sta. Bul. 86, 1935. Truck crop investigations: Spinach seed treat- ment. Sta. Bul. 87, 1935.
Washington	State College of Washington, Pullman. Cost of shipping point marketing services for apples in Washington. Sta. Bul. 312, 1935.
<u>Received During August 1935</u>	
Alabama	Alabama Polytechnic Institute, Auburn. The construction and operation of the mound orchard heater. Sta. Spec. Circ. (unnumbered) 1934.
Idaho	College of Agriculture, Moscow. The vitamin C content of the russet Burbank potato of Idaho. Sta. Bul. 219, 1935.
Iowa	Iowa State College of Agriculture, Ames. Control of cherry yellow-leaf on nursery stock. Sta. Bul. 332, 1935.
Massachusetts	Massachusetts State College, Amherst. Onions in the Connecticut Valley. Sta. Bul. 318, 1935. Pruning bearing apple trees. Sta. Bul. 320, 1935.
Michigan	Michigan State College, East Lansing. Experimental work on cucumber fermentation. Sta. Tech. Bul. 146, 1935.

- Minnesota College of Agriculture, University Farm, St. Paul.
Picking, handling, and refrigeration of rasp-
berries and strawberries. Sta. Bul. 318, 1935.
- Mississippi Mississippi State College, State College.
Varieties of peaches for the Yazoo-Mississippi
delta. Sta. Bul. 308, 1935.
- New York New York State College of Agriculture, Ithaca.
Investigations in pruning mature apple trees.
Sta. Bul. 624, 1935.
Soils in relation to fruit growing in New York.
Sta. Bul. 627, 1935.
An economic study of grape farms in eastern
United States. Sta. Bul. 628, 1935.
Effect of temperature on pollen germination and
tube growth in the tomato. Sta. Mem. 175, 1935.
Scab of violet caused by Sphaceloma. Sta. Mem.
176, 1935.
- Ohio Ohio Agricultural Experiment Station, Wooster.
Sugar, acidity, and juice color determinations
in grapes. Sta. Bul. 550, 1935.
Filler apple trees. Sta. Bul. 551, 1935.
- Oregon Oregon State Agricultural College, Corvallis.
Sprays, their preparation and use. Sta. Bul.
336, 1935.
- Received During September 1935
- California College of Agriculture, Berkeley.
The control of Dothiorella rot on avocado fruits.
Sta. Bul. 594, 1935.
- Connecticut Connecticut State College, Storrs.
Fertilizers for potatoes. Sta. Bul. 203, 1935.
- Delaware University of Delaware, Newark.
Some responses of yellow transparent apple trees
in Delaware to various nitrogen treatments. Sta.
Bul. 195, 1935.
- Florida College of Agriculture, Gainesville.
The tung-oil tree. Sta. Bul. 280, 1935.
Lime-sulfur sprays for the combined control of
purple scale and rust mites. Sta. Bul. 282, 1935.
Composition of miscellaneous tropical and sub-
tropical Florida fruits. Sta. Bul. 283, 1935.

- Michigan Michigan State College, East Lansing.
The influence of the length of the interval between pickings on the yield and grade of pickling cucumbers. Sta. Spec. Bul. 259, 1935.
- New Hampshire University of New Hampshire, Durham.
Oil penetration into insect eggs. Studies of contact insecticides: Sta. Tech. Bul. 62, 1935.
Studies of contact insecticides: Penetration of arsenic into insects. Sta. Tech. Bul. 63, 1935.
- New Jersey State College of Agriculture, New Brunswick.
Crab grass control on lawns. Sta. Circ. 354, 1935.
Sweetpotato storage houses. Sta. Circ. 359, 1935.
- New York New York State College of Agriculture, Ithaca.
Soils in relation to fruit growing in New York. Sta. Bul. 633, 1935.
Disinfecting soils by electric pasteurization. Sta. Bul. 636, 1935.
New York State Agricultural Experiment Station, Geneva.
Anatomy and postpupal development of the female reproductive system in the apple maggot fly, Rhagoletis pomonella Walsh. Sta. Tech. Bul. 229, 1935.
- Received During October 1935
- California College of Agriculture, Berkeley.
Biology and control of avocado insects and mites. Sta. Bul. 592. 1935.
Insect transmission, host range, and field spread of potato calico. Hilgardia, Vol. 9, no. 8. 1935.
- Illinois College of Agriculture, Urbana.
Fertilizer requirements of sweet corn. Bul. 417, 1935.
Fertilizer treatments for sweet corn. Circ. 439. 1935.
- Indiana Purdue University, La Fayette.
Composition of pumpkin and squash varieties as related to the consistency of the canned product. Bul. 402. 1935.
- Iowa Iowa State College of Agriculture, Ames.
Yellow dwarf, a virus disease of onions, and its control. Sta. Res. Bul. 188. 1935.
- Maine College of Agriculture, Orono.
A study of the organization and management of potato farms in central Maine. Sta. Bul. 379, 1935.

- Maryland University of Maryland, College Park.
Physiological studies on the pathogenicity of
Fusarium lycopersici Sacc. for the tomato plant.
Sta. Bul. 374. 1935.
Responses of the tomato in solution cultures
with deficiencies and excesses of certain essen-
tial elements. Sta. Bul. 375, 1935.
- Michigan Michigan State College, East Lansing.
Yellow dwarf disease of potatoes. Sta. Spec. Bul.
260. 1935.
- New Mexico New Mexico College of Agriculture and Mechanic Arts,
State College.
The vitamin B content of raw pinto beans. Sta.
Bul. 232. 1935.
- New York New York State Experiment Station, Geneva.
A survey of the behavior of cherry trees in the
Hudson river valley with particular reference to
losses from winter killing and other causes.
Sta. Bul. 653. 1935.
Common insect pests of New York: 3, The striped
cucumber beetle. Circ. 159. 1935.
Common insect pests of New York: 2, The Mexican
bean beetle. Circ. 160. 1935.
Common insect pests of New York: 4, The apple
maggot. Circ. 161. 1935.
Common insect pests of New York: 1, The cabbage
worm. Circ. 162. 1935.
- Vermont College of Agriculture, Burlington.
Apple orcharding: Winter injuries; grass endurance;
irrigation and nitrate; twenty-sixth to thirtieth
year of a 14-variety orchard. Sta. Bul. 395. 1935.
- Washington State College of Washington, Pullman.
Downy mildew of peas caused by *Peronospora Pisi*
(DeB.) Syd. Sta. Bul. 318. 1935.
Progress report of fertilizer studies with Jonathan
apples upon Ephrata fine sandy loam. Sta. Bul. 319.
1935.

Received During November 1935

- Rhode Island Rhode Island State College, Kingston.
The reaction of certain ornamental trees and shrubs
to liming. Sta. Bul. 250. 1935.
Economical amounts of nitrate of soda to apply in
the greenhouse for the growth of tomatoes. Sta.
Bul. 252. 1935.

- Texas Agricultural and Mechanical College of Texas, College Station.
Vegetable varieties for the winter garden region of Texas. Sta. Bul. 508. 1935.
- Received During December 1935
- Connecticut Connecticut State College, Storrs.
Marketing fruits and vegetables in Connecticut, with special reference to the New Haven market. Sta. Bul. 205. 1935.
- Georgia Georgia State College of Agriculture, Athens.
Dahlia variety test, 1935. Sta. Circ. 105. 1935.
- Illinois College of Agriculture, Urbana.
Factors influencing the refrigeration of packages of peaches. Sta. Bul. 418. 1935.
- Michigan Michigan State College, East Lansing.
Fruits and vegetables. Sta. Spec. Bul. 263. 1935.
The "thin wood" method of pruning bearing apple trees. Sta. Spec. Bul. 265. 1935.
- Minnesota Department of Agriculture of the University of Minnesota, St. Paul.
Packing Minnesota fruits for market. Sta. Bul. 323. 1935.
- Mississippi Mississippi State College, State College.
Pecan budding. Sta. Cir. 97. 1935.
Pecan bark grafting. Sta. Circ. 98. 1935.
- New York New York State Experiment Station, Geneva.
A potato seed plat roguing experiment. Sta. Bul. 655. 1935.
The chemical determination of the quality of canned green peas. Sta. Tech. Bul. 233. 1935.
The physiology of bean mosaic. Sta. Tech. Bul. 235. 1935.
A chemical method for determining the safeness to foliage of commercial calcium arsenates. Sta. Tech. Bul. 234. 1935.

UNITED STATES DEPARTMENT OF AGRICULTURE PUBLICATIONS, 1935*

- Diseases of cabbage and related plants. F. B. 1439 rev., price 5 cents.
- Apple bitter rot and its control. F. B. 938, price 5 cents.
- Containers used in shipping fruits and vegetables. F. B. 1579, price 5 cents.
- The production of cucumbers in greenhouses. F.B. 1320 rev., price 5 cents.
- Currants and gooseberries: Their culture and relation to white-pine blister rust. F. B. 1398 rev., price 5 cents.
- Apple scab. F. B. 1478 rev., price 5 cents.
- Pear growing in the Pacific Coast States. F. B. 1739, price 5 cents.
- Hotbeds and coldframes. F. B. 1743, price 5 cents.
- Subsistence farm gardens. F. B. 1746, price 5 cents.
- Fig growing in the South Atlantic and Gulf States. F. B. 1031, rev., price 5 cents.
- Tomatoes for canning and manufacturing. F. B. 1233 rev., price 5 cents.
- The native persimmon. F. B. 685, rev., price 5 cents.
- Greenhouse tomatoes. F. B. 1431 rev., price 5 cents.
- Spray residue removal from apples and other fruits. F. B. 1752, price 5 cents.
- Strawberry varieties in the United States. F.B. 1043 rev., price 5 cents.
- Immunity of Viking, a Norwegian red currant, to *Cronartium ribicola* and *C. occidentale* under greenhouse conditions. C. 330, price 15 cents.
- Walnut blight and its control in the Pacific Northwest. C. 331, price 5 cents.
- General information about the Japanese beetle in the United States. C. 332, price 5 cents.
- Distance of planting Rural New Yorker Number 2 and Triumph potatoes as affecting yield, hollow heart, growth cracks, and second-growth tubers. C. 333, price 5 cents.
- The disposal by burial of fruit infested with larvae of the Mexican fruit fly. C. 349, price 5 cents.

*F.B.= Farmers' Bulletin; T.B.= Technical Bulletin; C.= Circular; M.P.= Miscellaneous Publications; Q.= Bureau of Entomology and Plant Quarantine; H.= Hawaii bulletin.

Effect of freezing and cold weather on immature onions. C. 355, price 5 cents.

Cyanamid fumigation of mushroom houses. C. 364, price 5 cents.

Development of phoma rot of tomatoes in transit and in storage. C. 371, price 5 cents.

Fumigation of fresh fruit to destroy the adult Japanese beetle. C. 373, price 5 cents.

The Katahdin, Chippewa, and Golden potatoes. C. 374, price 5 cents.

Studies on the Mexican fruit fly, *Anastrepha ludens* (Loew). T. B. 444, price 5 cents.

Relation of maturity and handling of Bartlett pears in the Pacific Northwest to quality of the canned product. T. B. 450, price 5 cents.

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Notice of lifting quarantine Number 62 -- narcissus bulb quarantine, effective April 1, 1935. Q. 62.

Modifications of Mexican fruit worm quarantine regulations, effective March 19, 1935. Q. 64.

Japanese beetle quarantine, effective June 1, 1935. Q. 48.

Edible Passion fruit in Hawaii. H. 74.

